AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented): A slitter blade assembly for cutting off a workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said disk-shaped rotary blade having a cutting edge, a first beveled surface facing said drum-shaped rotary blade and progressively spaced from said drum-shaped rotary blade toward said cutting edge, and a second beveled surface facing the workpiece and progressively spaced from said cutting edge away from the workpiece, wherein a first distance (CL) of said first beveled surface up from said cutting edge along a severance plane perpendicular to a surface of the workpiece is set to a value which ranges from 40μm to 200μm and a first angle (q6) of said first beveled surface from said severance plane is set to a value which ranges from 0.8° to 14°.

2. (Previously Presented): A slitter blade assembly according to claim 1, wherein a second angle (q1) of said second beveled surface from said severance plane is set to a value which ranges from 65° to 85°.

3. (Previously Presented): A slitter blade assembly according to claim 2, wherein said disk-shaped rotary blade has a first clearance surface contiguous to said first beveled surface, and a third angle (q3) of said first clearance surface from said severance plane is set to a value which ranges from 2° to 5°.

4. (Previously Presented): A slitter blade assembly according to claim 2, wherein said disk-shaped rotary blade has a second clearance surface contiguous to said second beveled surface, and a fourth angle (q2) of said second clearance surface from said severance plane is set to a value which ranges from 20° to 45°.

5. (Previously Presented): A slitter blade assembly according to claim 4, wherein said second beveled surface and said second clearance surface are joined to each other at a junction, and a second distance (L1) from said junction to said severance plane is set to a value which ranges from 0.2 mm to 0.8 mm.

6. (Currently Amended): A slitter blade assembly for cutting off a workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said disk-shaped rotary blade having a cutting edge, a first beveled surface facing said drum-shaped rotary blade and progressively spaced from said drum-shaped rotary blade toward said cutting edge, and a second beveled surface facing the workpiece and progressively spaced from said cutting edge away from the workpiece, wherein said cutting edge of the disk-shaped rotary blade has irregularities along a circumference of the disk-shaped rotary blade, said irregularities having an irregularity quantity (G) set to a value which ranges from 0.5 μm to 5 μm and the irregularity quantity (G) is substantially along a radial direction of the disk-shaped rotary blade perpendicular to a rotational axis of the disk-shaped rotary blade, wherein the irregularities include plural periodicity.

7. (Original): A slitter blade assembly according to claim 1, wherein said disk-shaped rotary blade and/or said drum-shaped rotary blade is made of a cemented carbide.

8. (Withdrawn): A slitter blade assembly for cutting off a workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said drum-shaped rotary blade having a cutting edge and a third beveled surface facing said disk-shaped rotary blade and progressively spaced from said disk-shaped rotary blade toward said cutting edge.

9. (Withdrawn): A slitter blade assembly according to claim 8, wherein the distance HL of said third beveled surface up to said cutting edge along a severance plane perpendicular to a surface of the workpiece is set to a value which ranges from 25 μm to 500 μm, and the angle q5 of said third beveled surface from said severance plane is set to a value which ranges from 0.0° to 0.6°.

10. (Withdrawn): A slitter blade assembly according to claim 9, wherein said drum-shaped rotary blade has a third clearance surface contiguous to said third beveled surface, and the angle q4 of said third clearance surface from said severance plane is set to a value which ranges from 2° to 4°.

11. (Withdrawn): A slitter blade assembly according to claim 8, wherein said disk-shaped rotary blade and/or said drum-shaped rotary blade is made of a cemented carbide.

12. (Withdrawn): A slitter blade assembly for cutting off a workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said disk-shaped rotary blade having a cutting edge, a first beveled surface facing said drum-shaped rotary blade and progressively spaced from said drum-shaped rotary blade toward said cutting edge of the disk-shaped rotary blade, and a second beveled surface facing the workpiece and progressively spaced from said cutting edge of the disk-shaped rotary blade away from the workpiece;

said drum-shaped rotary blade having a cutting edge and a third beveled surface facing said disk-shaped rotary blade and progressively spaced from said disk-shaped rotary blade toward said cutting edge of the drum-shaped rotary blade.

13. (Withdrawn): A slitter blade assembly according to claim 12, wherein said disk-shaped rotary blade and/or said drum-shaped rotary blade is made of a cemented carbide.

14. (Withdrawn): A slitter blade assembly according to claim 12, wherein the distance CL of said first beveled surface up to said cutting edge along a severance plane perpendicular to a surface of the workpiece is set to a value which ranges from 40 μm to 200 μm, the angle q6 of said first beveled surface from said severance plane is set to a value which ranges from 0.8° to 14°, the angle q1 of said second beveled surface from said severance plane is set to a value which ranges from 65° to 85°, the distance HL of said third beveled surface up to said cutting edge along a severance plane is set to a value which ranges from 25 μm to 500 μm, and the angle q5 of said third beveled surface from said severance plane is set to a value which ranges from 0.0° to 0.6°.

15. (Previously Presented): A slitter blade assembly according to claim 1, wherein said cutting edge is spaced apart from the severance plane perpendicular to a surface of the workpiece.

16. (Previously Presented): A slitter blade assembly according to claim 1, further comprising a means for rotating the drum-shaped rotary blade in unison with the disk-shaped rotary blade.

17. (previously presented): A slitter blade assembly for cutting off a workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said disk-shaped rotary blade having a cutting edge, a first beveled surface facing said drum-shaped rotary blade and progressively spaced from said drum-shaped rotary blade toward said cutting edge, and a second beveled surface facing the workpiece and progressively spaced from said cutting edge away from the workpiece, wherein the drum-shaped rotary blade is disposed on a drum shaft, the disk-shaped rotary blade is disposed on a disk shaft, and the slitter blade assembly further comprising means for transmitting driving force between the drum shaft and the disk shaft,

wherein a first distance (CL) of said first beveled surface up from said cutting edge along a severance plane perpendicular to a surface of the workpiece is set to a value which ranges from 40μm to 200μm and a first angle (q6) of said first beveled surface from said severance plane is set to a value which ranges from 0.8° to 14°.

18. (Previously Presented): A slitter blade assembly according to claim 6, wherein said irregularities having a saw-tooth shape or an undulating shape and said irregularity quantity being a distance from a bottom to a top of one of the irregularities.

19. (Previously Presented): A slitter blade assembly according to claim 17, wherein the drum shaft and the disk shaft are operably connected to rotate in unison.

20. (Previously Presented): A slitter blade assembly according to claim 17, wherein the means for transmitting the driving force comprises gears.

21. (Previously Presented): A slitter blade assembly according to claim 6, wherein the drum-shaped rotary blade comprises at least one groove and the disk-shaped rotary blade is operable to enter the at least one groove of the drum-shaped rotary blade.

22. (Previously Presented): A slitter blade assembly according to claim 6 further comprising a plurality of disk-shaped rotary blades, wherein the disk-shaped rotary blade is one of a plurality of a disk-shaped rotary blades, the drum-shaped rotary blade comprises a plurality of grooves, each of the plurality of disk-shaped rotary blades corresponding to one of the plurality of grooves.

23. (Previously Presented): A slitter blade assembly according to claim 22, wherein the plurality of grooves are disposed on a surface of the drum-shaped rotary blade.

24. (Previously Presented): A slitter blade assembly according to claim 17, wherein the drum-shaped rotary blade comprises at least one groove and the disk-shaped rotary blade is operable to enter the at least one groove of the drum-shaped rotary blade.

25. (Previously Presented): A slitter blade assembly according to claim 17 further comprising a plurality of disk-shaped rotary blades, wherein the disk-shaped rotary blade is one of a plurality of a disk-shaped rotary blades, the drum-shaped rotary blade comprises a plurality of grooves, each of the plurality of disk-shaped rotary blades corresponding to one of the plurality of grooves.

26. (Previously Presented): A slitter blade assembly according to claim 25, wherein the plurality of grooves are disposed on a surface of the drum-shaped rotary blade.